UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,577	09/22/2003	Zhichen Xu	200300594-1	8618

22879   7590   07/23/2008
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EXAMINER
LEROUX, ETIENNE PIERRE

ART UNIT	PAPER NUMBER
2161	

NOTIFICATION DATE	DELIVERY MODE
07/23/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
	10/666,577	XU ET AL.
Office Action Summary	Examiner	Art Unit	
	Etienne P. LeRoux	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 April 2008</u>.

2a)☐ This action is FINAL. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,4,6-21,23-35,40,41 and 43-45</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,4,6-21,23-35,40,41 and 43-45</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>22 September 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Claim Status:

Claims 1, 4, 6-21, 23-35, 40, 41 and 43-45 are pending and rejected as detailed below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "tuple" in claim 1 is used by the claim to mean "statement," while the accepted meaning of tuple is *a row which includes a set of related values, one for each column in a relational database management system.*[1] The term is indefinite because the specification does not clearly redefine the term. For purposes of this Office Action the claimed "tuple" will be interpreted as a statement.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this
or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 4, 6-10, 12-21, 23-35, 40, 41 and 43-45 are rejected under 35 U.S.C. 102(a) as

being anticipated by Pub No US 2003/0145306 (Melahn et al).

Regarding claim 1, 10, 20, 34, 35, 40, 41, 45, Melahn discloses a first object identifier

identifying a first object stored in the file system, wherein the first object comprises a first file

stored in the file system [source file, para. 18 stored in repository 104, Fig 2], a second object

identifier identifying a second object stored in the file system, the second object being related to

the first object [target file is built from the source file using a build utility 112, para. 18], wherein

the second object comprises at least one of a second file generated from the first file [target file is

built from the source file using a build utility 112, para. 18] and metadata generated from the

first file [build indicators of the source file and the target file are set to a common value, para.

36] and a relation identifier [build tools 114, para. 19, Fig 2, time stamp indicates up-to-date

files, para. 21, version indicators, para. 28] identifying a relationship between the first object and

the second object wherein the data model includes a tuple in a format and order comprising the

first identifier, the relation identifier and the second object identifier [determine if a Host Source

File is up-to-date with respect to a Repository Source File, step 164, Fig 3A, Select a Build

Source File that matches the Repository Source File, step 170, Fig 3A]

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[1] Microsoft Computer Dictionary, Fifth Edition

determining whether the first object in the file system is accessed [source file, para. 32],

identifying a precondition associated with the first object in response to the first object being

accessed [version of source file, para. 32] performing an action in response to the predetermined

condition existing [build request, para. 32] wherein the relation identifier identifies the

predetermined condition and action [build request, para. 32, includes repository indicator, name

of file, location of file, name of source file, versioning information]

 Regarding claim 4, 21, Melahn discloses wherein the relation identifier is a semantic of

the first file [determining whether the repository target file is up-to-date regarding the source file,

para. 9]

 Note: Examiner interprets semantic as meaning

 Regarding claim 6, Melahn d4iscloses wherein the relation identifier comprises a

property of the first object and the second object comprises a value of the property for the first

object [build indicators of the source file and the target file are set to a common value, para. 36]

 Regarding claim 7, Melahn discloses wherein the data model represents a function

operable to be performed in the semantic file system [target file is built from the source file using

a build utility 112, para. 18]

 Regarding claim 8, 23, Melahn discloses wherein the function is associated with one or

more of generating a view of the objects stored in the semantic file system, restricting access to

an object in the file system, searching in the semantic file system, performing an action based on

at least one predetermined condition, and performing archival functions in the semantic file

system [Fig 2, repository 104]

Regarding claim 9, Melahn discloses wherein the relation identifier identifies a

dependency between the first object and the second object [build indicators of the source file and

the target file are set to a common value, para. 36]

Regarding claim 12, 28, Melahn discloses wherein the dependency is associated with one

or more users or one or more applications [Fig 2, content developers 108]

Regarding claim 13, 24, 43 Melahn discloses wherein the dependency is used to generate

file space views for the one or more users or for the one or more applications [access by

specified content developers, para. 30]

Regarding claim 14, 31, Melahn discloses wherein the relation identifier identifies the

second object as including property semantic information for the first object, the property

semantic information including statistical information for the first object [time stamps for the

files indicate when they were created or last updated, para. 36]

Regarding claim 15, Melahn discloses wherein the relation identifier identifies the second

object as including context semantic information for the first object, the context semantic

information being associated with access patterns for the first object [para. 30, repository is

configured to allow access by specified content developers]

Regarding claim 16, Melahn discloses wherein the first object is a file and the access

patterns are associated with one or more other files accessed before or after the file [versioning

information identifies specific version of the source file and the target file respectively, para. 32]

Regarding claim 17, Melahn discloses wherein the relation identifier identifies the second

object as including content-based semantic information associated with content of the first object

[build report, para. 19]

Regarding claim 18, 32, Melahn discloses wherein the data model is used to represent

multiple types of relation identifiers in a schema [file time stamp, WebDAV time stamp,

indicator indicating when file was created or built, para. 35]

Regarding claim 19, 25, 26, Melahn discloses wherein the schema is modifiable to

include a new relation identifier or to remove a relation identifier currently in the schema [target

file can be built from a plurality of source files, para. 20]

Regarding claim 27, Melahn discloses wherein at least one of the plurality of relation

metadata is determined through property inheritance from the schema [build utility 112 builds

updated target files from source files using known build tools 114, para. 19]

Regarding claim 29, Melahn discloses extracting semantic information for the objects and

storing the semantic information [build report may be stored in file system 124 for viewing by

content developers 108, para. 19]

Regarding claim 30, Melahn discloses receiving a request for information stored in the

file system and searching the semantic information to identify any files stored in the file system

that meet the request [para. 32]

Regarding claim 33, 44, Melahn discloses returning results of the search using a precision

variable, wherein the precision variable is related to a relevance of search results to the search

request [at step 152, a repository associated with the file and a source file on which the file is

dependent is identified, para. 33]

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melahn as

applied to claim 9 above, and further in view of Pub No US 2003/0033590 (Leherbauer),

hereafter Leherbauer.

Regarding claim 10, Melahn discloses the elements of the claimed invention as noted

above but does not disclose wherein the dependency is associated with a hierarchal file space.

Leherbauer discloses wherein the dependency is associated with a hierarchal file space [para.

25]. It would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify Melahn to include above limitation as taught by Leherbauer for the purpose of

establishing a baseline such that diverging modifications can be tracked [para. 25].

Response to Arguments

Applicant's arguments filed 4/4/2008 have been fully considered but they are not

persuasive.

Applicant Argues:

As noted above, the Office Action misinterpreted the term tuple to mean statement in claim 1 in

order to reject the claim with Melahn et al. Thus, it is respectfully submitted that claim 1 is

allowable because Melahnet al fails to disclose a tuple as commonly understood in the art.

Examiner Responds.

Examiner is not persuaded. During examination, examiner is required to give claim language its

broadest reasonable interpretation in light of the specification. Claim 1 includes the following:

a relation identifier identifying a relationship between the first object and the second object,

wherein the data model includes a tuple in a format and order comprising the first object

identifier, the relation identifier and the second object identifier.

Paragraph 68 of the specification states:

0068] FIG. 4 illustrates a method 400, according to an embodiment of the invention, for

performing an action in response to a predetermined condition. At step 400, the event module

252 of FIG. 2, for example, determines whether a file is accessed. If a file is accessed, the event

module 252 determines whether a predetermined condition/action exists for the file (step 430).

For example, meta data (e.g., one of the relations 126) associated with the file identifies one or

more predetermined condition/action tuples (represented by the data model 260). Suppose the

file Shrek depends on the file Ogre. One of the events associated with that relation may include

<modified(Ogre): rebuild(Shrek)>, which specifies that Shrek is regenerated if Ogre is modified.

Thus, the precondition is when the object Ogre is modified, and the action is the regeneration of

the object Shrek. A stored relation may identify the precondition/action. At step 440, if the

precondition exists (as determined in step 430), the action is performed (e.g., rebuilding the file

Shrek in response to the file Ogre being modified).

The above usage of the term "tuple" in the specification of instant application is <u>not</u>

(emphasis added) as would be commonly understood in the art as alleged by applicant. The

following description of the term "tuple" by Chang (US Pat No 4,283,771) is how one of

ordinary skill in the art would understand the term "tuple."

US Pat No 4,283,771 - Chang

A data base can be considered as a structured collection of data which is accessible by concurrent

users through computer systems. A relational model of data base, first described by E. F. Codd,

Communications of the ACM, Volume 13, No. 6, p. 377, June 1970, views data in tabular form

with a set of similar entries arranged in rows (tuples), and their many attributes aligned in

columns (domains). A relational data base is a collection of many such tables. The items in the

table may vary with time because of modifications, insertions, and deletions. Data in two or more

relations (i.e., tables) can be interrelated through compatible attributes which appear in each of

the relations. This allows the user to execute queries which have extensive selection criteria.

Chang discloses that a relational database comprises tables which has entries arranged in

rows which are also known as tuples.

Furthermore, Microsoft Computer Dictionary Fifth Edition states:

tuple: In a database table (relation), a set of related values, one for each attribute (column). A

tuple is stored as a row in a relational database management system.

Clearly, the disclosure by Chang and the Microsoft Computer Dictionary agree on the

definition of the term "tuple." On the other hand, the usage of the term "tuple" in the

specification of instant application is <u>not</u> (emphasis added) as would of ordinary skill in the art

would understand the term "tuple." The specification of instant application states:

Specification of instant application:

For example, meta data (e.g., one of the relations 126) associated with the file identifies one or

more predetermined condition/action tuples (represented by the data model 260). Suppose the

file Shrek depends on the file Ogre. One of the events associated with that relation may include

<modified(Ogre): rebuild(Shrek)>, which specifies that Shrek is regenerated if Ogre is modified.

Thus, the precondition is when the object Ogre is modified, and the action is the regeneration of

the object Shrek. A stored relation may identify the precondition/action.

Examiner after further consideration, maintains that interpreting the term "tuple" as a

conditional statement is correct in light of the above except from the specification. One of

ordinary skill in the art understands "statement" as - the smallest executable entity within a

programming language – Microsoft Computer Dictionary. One of ordinary skill in the art would

understand the specification language " predetermined condition/action tuples" is an executable

entity within a programming language.

Melahn discloses:

0044] The general selection step 162 can be performed using steps 164 through 170. At step 164, a determination is made as to whether the host source file is up-to-date with respect to the repository source file. In one embodiment, the repository source build indicator is compared to a host source build indicator associated with a host source file, if available, to determine if the host source file is up-to-date with respect to the repository source file. If the build indicators are time stamps indicating when a source file was created or last updated, the host source file is up-to-date with respect to the repository source file if the time stamp of the host source file matches the time stamp of the repository source file; otherwise the host source file is not up-to-date with respect to the repository source file. If the host source file does not exist, it is treated as if it is not up-to-date.

[0045] The build indicators facilitate the determination as to whether the host source file is the same as the repository source file. Accordingly, it is contemplated that the build indicators may be an indication other than a time stamp, such as file size (e.g., number of bytes), lines of program code, or essentially any feature that could be used to distinguish one file from another. For example, if the file sizes of the repository source file and the host source file are different, the host source file is not up-to-date with respect to the repository source file. Other means for distinguishing will be readily apparent to those skilled in the art and are considered within the spirit and scope of the present invention.

[0046] At step 166, the determination in step 164 is used to direct processing. If the host source file is not up-to-date (indicating that the host source file is different from the repository source file), processing proceeds at step 168. If the host source file is up-to-date (indicating that the host source file is the same as the repository source file), processing proceeds at step 170.

        Melahn teaching of "at step 164, a determination is made as to whether the host source

file is up-to-date with respect to the repository source file" and further "at step 166, the

determination in step 164 is used to direct processing. If the host source file is not up-to-date

(indicating that the host source file is different from the repository source file), processing

proceeds at step 168" anticipates the claim language "wherein the data model includes a tuple in

a format and order comprising the first object identifier, the relation identifier and the second

object identifier."

Applicant Argues:

Applicant states that the prior art made of record does not anticipate claims 20 and 40 for the

same reasons as claim 1.

Examiner Responds:

Applicant is referred to above reasoning presented for claim 1.

Applicant Argues:

Applicant states on page 16:

Claims 15 and 31 further recite, inter alia, context or context-based semantic information that is

"being associated with access patterns for the first object." The Office action cited to paragraph

[0030] in Melahn" et al., which merely states that the repository 104 may be configured "to

allow access by specified content developers." Thus, it is respectfully submitted that Melahn et

al., does not show the use of any "access patterns" for association with context-based semantic

information as claimed.

Examiner Responds:

Examiner is not persuaded. The specification in paragraph 43 discloses:

Some examples of relation identifiers for context semantic information include no_writes,

no_reads, accessed_before, accessed_by, and accessed_from.

Examiner concludes that accessed by a specific used correctly reads on the claim terminology

"access patterns.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P. LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached on Monday through Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on (571) 272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

7/11/2008
/Etienne P LeRoux/
Primary Examiner, Art Unit 2161